REMARKS

As discussed in the Amendment/Response as submitted on October 6, 2003 which is responsive to the Office Action mailed August 29, 2003, Claim 1 has been amended to structurally distinguish over the primary reference. Claim 2 has been incorporated in claim 1. Claims 3 and 4 have been amended for clarity. New method claim 38 was previously added. This amendment was submitted as a draft amendment after several telephone conversations with Examiner Gailene R. Gabel. After the draft response was received and considered, the Examiner indicated that the claims as amended were allowable over the art of record. However, that because of the amendment to the claims an additional search would be required. As a result, Applicant has filed a Request for Continued Examination submitting the amendment for examination.

Referring now particularly to claim 1, this claim calls for a capillary which has first and second ends with the second end suspended, and a pump connected to the first end of the capillary channel to draw sample into the capillary from the second end and through the capillary to cause particles to flow along the capillary channel. The claim further calls for a light source for illuminating a predetermined length of the capillary channel to illuminate the volume of sample in said predetermined length and a detector for detecting fluorescent light emitted by particles in said volume of sample excited by the illumination impinging upon particles in said predetermined length.

Claims 1, 3, and 4 are being rejected as being fully anticipated by Goix (WO 98/57152). A careful reading of the reference shows that it teaches the use of a pump such as syringe pump connected to one end of a capillary for injecting a test sample into and through a capillary. There is an important and non-obvious difference between these two methods of causing sample to flow through the capillary. By drawing sample into the capillary and past the impinging light beam, very small volumes of sample are required, only that small volume of sample which is required to give a meaningful count of particles. In contrast, in the prior art apparatus and other apparatus a larger volume of sample than that required for analysis is needed in order to fill the pump and associated apparatus. In Applicant's apparatus the sample is drawn directly out of a sample vial or container into and through the capillary. A second and non-obvious advantage is the fact that in the prior art either a disposable pump is required to prevent cross contamination or mixing of the sample, or in the alternative a thorough washing of the pump is required

between sample analyses. In contrast, Applicant draws the sample into the suspended end of the capillary directly from the sample vial or container, avoiding any mixing or cross contamination. Claim 1 calls for a pump connected to the first end of the capillary. The second end is suspended for immersion into the sample. The pump draws a sample into the second end of the capillary. This arrangement is not suggested in the primary reference or in any of the secondary references. It is submitted the foregoing is a non-obvious patentable improvement in the cytometry art.

Claim 3 specifies that the channel capillary cross-section is circular and when read in connection with the claim from which it depends is clearly patentable over the art. Claim 4 provides an additional advantage in that the use of a square capillary tube with a rectangular passage avoids any focusing effect of a round capillary tube and therefore provides a substantially uniform beam through the capillary tube. This is not suggested in the prior art. Claim 6 calls for an additional detector to detect scattered light and when read in connection with the claim from which it depends defines patentable subject matter. Claims 8-11 are more specific and are all dependent upon claim 1 and when read in combination with claim 1 define a novel combination not suggested by the prior art. Claim 34 is dependent from claim 1 and is more specific in that it provides for a capillary having a cross-sectional area such that the particles singulate. Claim 35 is more specific in calling for the optical system associated with the novel apparatus of claim 1. Claims 36 and 37 are deemed patentable when read in combination with claim 1.

New claim 38 is directed to the method which includes drawing the sample into the capillary from a suspended end. This is not suggested by the prior art and provides the advantages described above.

In view of the foregoing it is submitted that the application is now in condition for allowance.

The Commissioner is hereby authorized to charge any fees associated with this communication to our Deposit Account No. 50-2319 (Order No. A-69516/AJT (463032-23)).

Respectfully submitted,

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